

Montana Board of Oil and Gas Conservation Environmental Assessment

Operator: Enerplus Resources (USA) Corporation
Well Name/Number: Filk-Lucky No. 12-3-HID3
Location: NE NW Section 12 T25N R53E
County: Richland, MT; **Field (or Wildcat):** Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 20-30 days drilling time.

Unusually deep drilling (high horsepower rig): Triple derrick rig 900-1000 HP, single lateral Bakken Formation development well MD 13,756' and 9,492' TVD.

Possible H₂S gas production: Slight

In/near Class I air quality area: No Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☒ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Existing pipeline for gas in the area.

Water Quality

(possible concerns)

Salt/oil based mud: Yes to intermediate string casing hole will be drilled with oil based invert drilling fluids. Horizontal lateral will be drilled with invert oil based drilling fluids. Surface casing hole to be drilled with freshwater and freshwater mud.

High water table: No high water table at this location.

Surface drainage leads to live water: No, closest ephemeral drainage is an unnamed tributary drainage to the Middle Charley Creek, about 1/8 of a mile to the south from this location. Within Middle Charley Creek are stock ponds.

Water well contamination: No, all water wells close by are between 75' and 350' in depth and are shallower than 1451' surface casing setting depth. Closest water well is about 5/8 of a mile to the east northeast and 1/2 of a mile to the west from this location. All other water wells are 1 mile or further from this location.

Porous/permeable soils: No, sandy silty clay soils.

Class I stream drainage: No, Class I stream drainages.

Mitigation:

☒ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 1451' of surface casing will be set well below freshwater zones in adjacent water wells and also, covering Fox Hills aquifer. Surface hole will be drilled with freshwater and freshwater drilling fluids. Adequate surface casing and operational BOP equipment will prevent problems.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No stream crossings required.

High erosion potential: Possible, location has a moderate cut of 14.5' and moderate fill of up to 16.9', required.

Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 430'X300'.

Damage to improvements: Slight, surface use appears to be grasslands.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Access will be over existing county roads, 321 and 141. About 141' of new access is proposed to be built to access this location from the existing county road 141. Oil based invert muds will be recycled and cuttings will be buried in a lined pit. Any excess fluid left from drilling and completion operations in the reserve pit will be hauled to a commercial Class II disposal. Pit will be allowed to dry and subsoil clays mixed with the cuttings. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence is about 5/8 of a mile to the east from this location.

Possibility of H2S: Slight

Size of rig/length of drilling time: Triple drilling rig 20 to 30 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threatened or endangered by the USFWS are the Pallid Sturgeon, Interior Lease Tern, Piping Plover and Whooping Crane.

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☐ Other agency review (DFWP, federal agencies, DSL)

☐ Screening/fencing of pits, drillsite

☐ Other: _____

Comments: Private surface lands. No concerns.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified.

Mitigation

 avoidance (topographic tolerance, location exception)

 other agency review (SHPO, DSL, federal agencies)

 Other: _____

Comments: Private surface lands. No concerns.

Social/Economic

(possible concerns)

 Substantial effect on tax base

 Create demand for new governmental services

 Population increase or relocation

Comments: Development horizontal Bakken Formation well in this existing spacing unit.

Remarks or Special Concerns for this site

Development well in an existing 640 acre spacing unit, Section 12 T25N R53E. No concerns

Summary: Evaluation of Impacts and Cumulative effects

MD 13,756' and 9,492' TVD Bakken Formation horizontal well. No long term impacts expected, some short term impacts are expected with the drilling of this well.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/ Steven Sasaki

(title:) Chief Field Inspector

Date: May 5, 2010

Other Persons Contacted:

(Name and Agency)

Montana Bureau of Mines and Geology, Groundwater Information Center website, Richland County water wells

(subject discussed)

April 30, 2010

(date)

USFWS Threatened, Endangered, Proposed and Candidate Species Montana Counties

website

(Name and Agency)

Threatened or Endangered Endanger species

(subject discussed)

April 30, 2010

(date)

If location was inspected before permit approval:

Inspection date: May 4, 2010

Inspector: Ron Prevost

Others present during inspection: None